

ABSTRACT OF THE INVENTION

A technique is disclosed for scheduling data parcels from at least one client
5 process to be output for transmission over a first communication line having an
associated first bit rate. The at least one client process may include a plurality of client
processes, each having a respective, associated bit rate. A plurality of data parcels
associated with the client processes are identified by a scheduler. The scheduler
performs scheduling operations and selects specific client data parcels to be included in
10 an output stream provided to physical layer logic for transmission over the first
communication line. An appropriate ratio of “filler” data parcels to be inserted into the
output stream is determined. The “filler” data parcels correspond to disposable data
parcels which do not include meaningful data. The output stream generated by the
scheduler may include a uniform pattern of client data parcels (e.g. data parcels
15 originating from the client processes) and “filler” data parcels. Additionally, according
to specific embodiments, the scheduler is devoid of an internal clock source, and may
perform scheduling operations based upon ratios of client and “filler” data parcels,
rather than on an internal time base or reference signal.